

not far from a group of six Painted Storks which they somewhat resembled in the distance.

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No. XVIII.—NOTES ON TWO YOUNG INDIAN HORNBILLS.

(With a plate.)

We publish photographs of two young female great Indian Hornbills at present alive in the Society's rooms. They arrived as the result of an appeal by the Hon. Secretary for a substitute for the late lamented "William" who for 26 years, from his cage behind the official chair, was a source of inspiration and encouragement to past Honorary Secretaries of the Society. Both birds are females and have been christened Helen and Joan. Since their arrival they have been fed on a mixed diet of boluses of boiled rice, various species of figs, plantains and an occasional tit-bit of meat a regime on which they have thrived and prospered exceedingly. From the earliest both Joan and Helen were most cordial in their welcome to anyone approaching their cage, they connected the event as a prelude to being fed and signalled their hearty approval with craning necks, quivering distended bills and loud and prodigious croaking. This performance they repeated with infinite gusto at frequent intervals throughout the day. Blessed or cursed with insatiable appetites the mere sound of footsteps passing by their cage would suffice to rouse them from seemingly peaceful slumber to frantic and noisy effort. These demonstrations naturally had a disturbing effect on our Honorary Secretary, who being a busy man and inclined to be wrathful when roused, consigned them frequently to perdition and eventually banished them from the Museum to the work room below. But they have since been restored to favour, as with the passing of infancy came the attainment of more balanced views and a more decorous code of behaviour. Helen and Joan are now content to wait for their meals and do not signalise the occasion by quite so great a display of the emotions.

In colour and markings the birds were on arrival an exact replica of the adult. They were at that time probably but a few months old and had not yet developed the great superstructure of the casque though even at this early stage their bills showed signs of this impending development. The first indication of this was a shallow groove running along each side of the upper mandible and meeting at a point about the middle of the culmen. The profile of the culmen does not however lose the perfect curve till about two months later. When it becomes gradually notched at the apex of the grooves, the portion of the beak bounded by these grooves then takes the appearance of a ridge which develops gradually into the casque. At the present stage the casque is small, flat and pointed in front. In the adult bird it is assumed that the casque, as the name *bicornis* implies, is concave in front ending in two points or 'horns' but it is interesting to note that while this feature was very evident in a live adult female bird sent to the Society by Mr. Tuggersee in March last year, a male specimen which lived with us for 26 years retained a perfectly flat casque up to the time of its death.

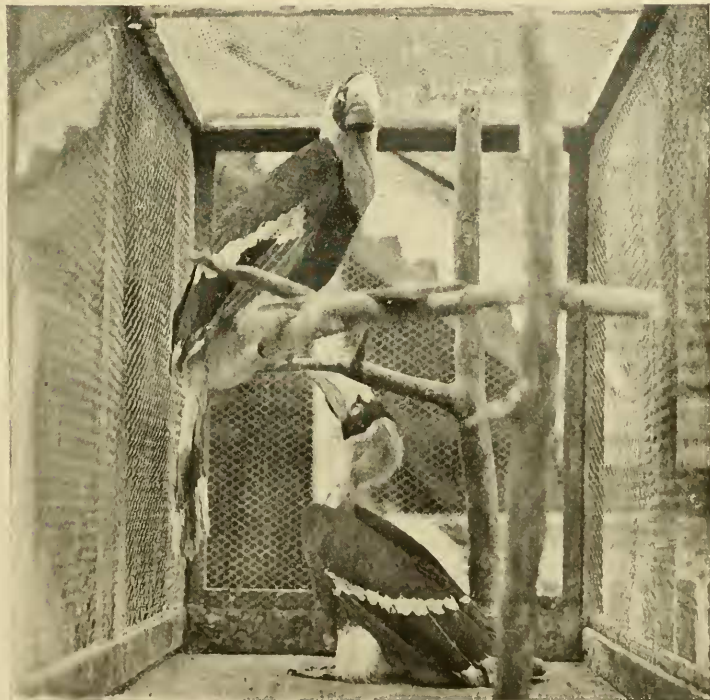
Was this an individual variation or is the concavity of the casque a distinguishing feature of the female bird?

The question arises of what use is the unwieldy appendage to the Hornbill?

Pycraft, in his fascinating book the "History of Birds" in explaining the great length of the beak in Toucans and Hornbills quote, Bates who, writing of the



"Feeding Time."



Joan and Helen.
YOUNG GREAT INDIAN HORNBILLS. (*D. bicornis*.)

